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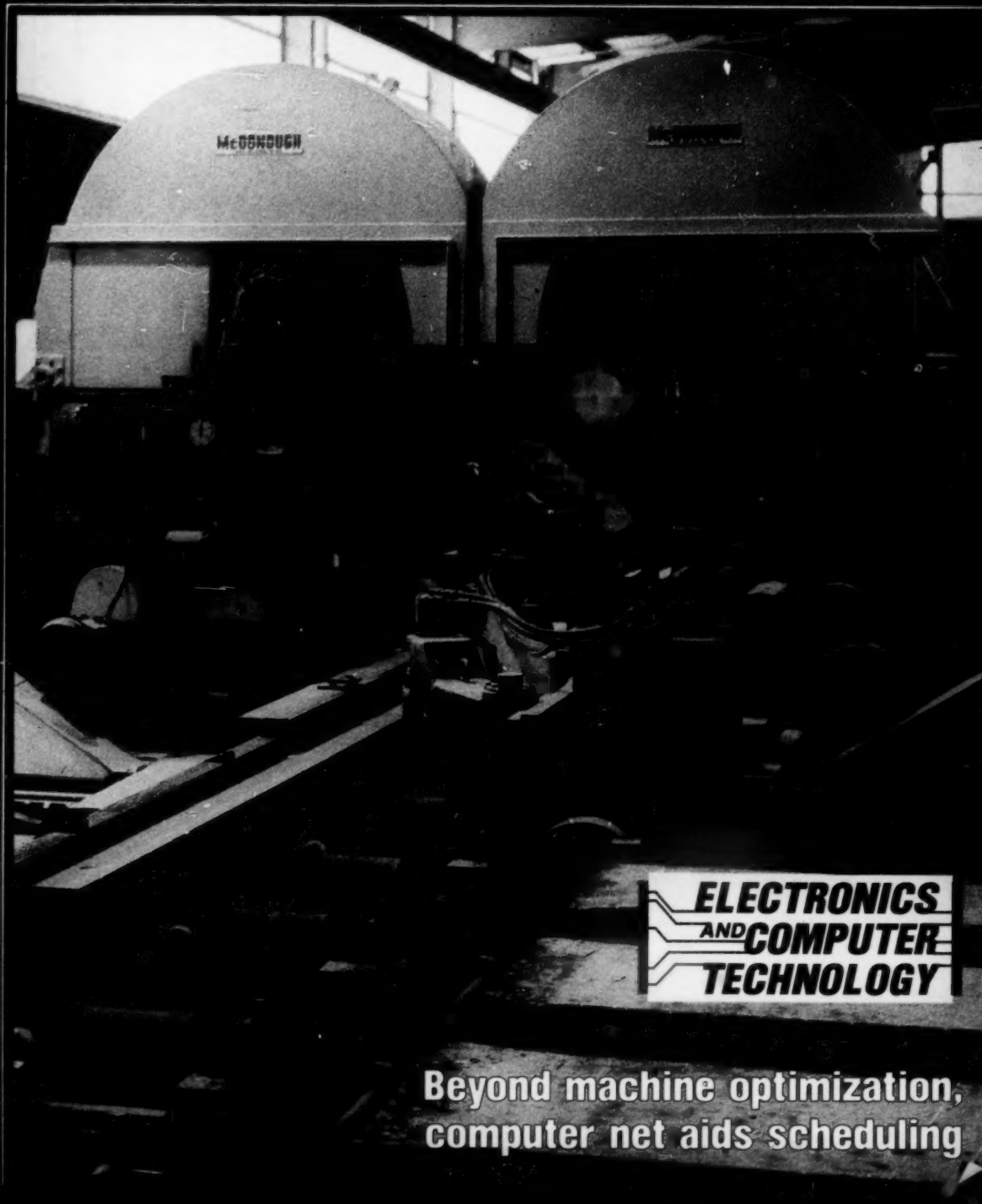
SEPTEMBER 1988

FOREST INDUSTRIES

LOGGING/PULPWOOD/FORESTRY/LUMBER/PANELS



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ELECTRONICS AND COMPUTER TECHNOLOGY

Beyond machine optimization, computer net aids scheduling

CONVERSATION

Alliances change machinery scene

HAS ANYONE NOTICED what's happening in the heavy equipment business? Manufacturers based in Asia, Europe and North America are forming a variety of alliances aimed at streamlining an industry that has proven itself all too susceptible to economic swings in major markets.

The most recent move was formation of Komatsu Dresser Co. as a 50/50 joint venture by the two parent companies in its name. KD, with headquarters in Libertyville, Ill., is absorbing current Komatsu and Dresser Construction & Mining manufacturing operations in the United States, Canada and Brazil, plus marketing, distribution and parts operations.

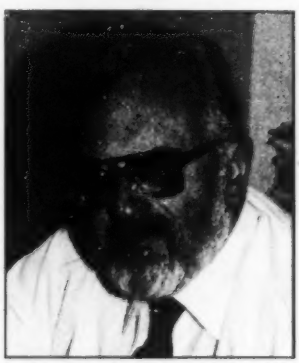
One of the first items of business will be investment of some $250 million in plant modernization, after which Komatsu models currently made in Japan will be built in the Western Hemisphere for this market. Beyond the machining centers, robotic welding equipment, tools and fixtures planned for the remodeled plants, KD makes a point of its pipeline to Komatsu's R&D works in Japan, which last year spent some $240 million on engineering, research and development. My own guess is that current parallel Komatsu and Dresser product names and distribution networks will eventually be merged once new products start coming off the Western Hemisphere assembly lines, no doubt a sensitive topic among dealers and employees.

A similar union occurred in 1985 when Clark Equipment Co. and AB Volvo merged their construction equipment operations into VME Group N.V., owned equally by the two companies. One of three main operating units worldwide is VME Americas Inc., based in Cleveland, which last year posted a 17% increase in sales. North America represented 35% of VME Group's worldwide sales last year and contributed enough Michigan wheel loader sales to boost worldwide market share in this category. The company introduced four new wheel loaders, added an articulated hauler model and updated seven of eight Ranger log skidder models.

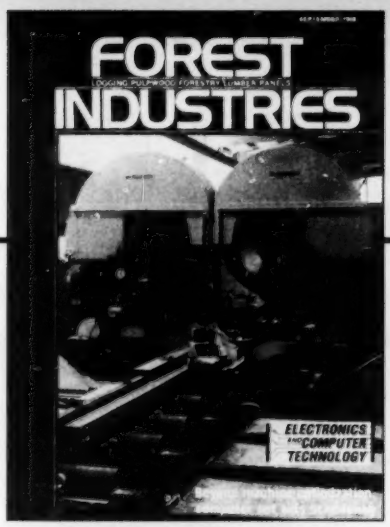
There are other examples. FMC Corp. and Sumitomo Heavy Industries Ltd. are partners in Link-Belt Construction Equipment Co., a joint venture based in Lexington, Ky. Early this year, Deere & Co. and Hitachi Construction Machinery Co. Ltd. began steps to undertake a U.S.-based joint manufacturing and marketing venture for hydraulic excavators. Caterpillar Inc. is linked with Mitsubishi Heavy Industries in a manufacturing venture in Japan and sources worldwide markets from its own factories all over the map.

Consolidation of manufacturing and engineering resources in the interest of efficiency is not a bad thing. One hopes, however, that as these merged and/or jointly owned companies grow in size, product R&D for the forest products market is not shouldered aside by the numbers generated from the much larger dirt and rock-pushing industries.

Cat, Deere and VME have, to varying degrees, invested substantially in forestry R&D and specific products for the market. Others have left the job to dealers and OEM/aftermarket conversion specialists. There is room in the woods for both; however, it only takes a quick sample census in logging country to see the payoff awaiting dedicated forest products machines.



Dave Pease



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SEPTEMBER

Electronic Technology

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New dimension mill adds 'total process control'
Design of Union Camp Corp.'s new Franklin, Va., dimension mill aims at maximum flexibility to meet demands of changing markets. Optimization is applied to primary machines

22
Positioners, scanners revitalize big headrigs
Modern scanning technology is not limited to high-output, small-log sawmills. In Bend, Ore., DAW Forest Products' 50-year-old pine mill uses electronic systems to help maximize grade recovery while maintaining speed

25
Dual lines, optimization add to mill flexibility
Temple-Eastex Inc.'s new two-sided dimension mill in Buna, Texas, has been designed to allow for adding new process control technology as it is developed. High grade recovery is credited to QC program

30
Compare mill options with desktop computer
Linear programming permits lumber and panel producers to fine-tune the product mix for maximum profit, helping in material allocation, scheduling and routing. Once a complicated process, now it can be done on a PC

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SINGLE STARTS STALL

Housing climbs slowly; interest rates eyed

WASHINGTON, D.C.—The home building market in July continued a slow upward movement. Housing starts were calculated by the U.S. Commerce Department at a seasonally adjusted annual rate of 1,489,000 units.

This start rate was a 2.4% improvement from the adjusted June rate of 1,454,000, but 6.6% below the rate for July 1987.

The starts rate this year bottomed out in May at 1,393,000 after a high point of 1,584,000 in April.

In the July mix, single-family units stalled out less than a percentage point below the previous month's rate, while multi-family units jumped 18.7%. The sudden increase in multi starts, after two months of downward movement, was attributed to a surge of backed-up permit approvals.

Building permits in July sagged 5.4% to a rate of 1,413,000 after a June increase of 4%. This was 6.4% below the July 1987 figure.

Rising interest rates continue to concern players in this market. National Assn. of Home Builders chief economist David Seiders said to look for fixed-rate mortgages to reach 11.5% by the end of this year and 12% by mid-1989. Rates in that area should continue to hold back an industry that currently is at part throttle, rather than create a crash, observers indicate.

Actual housing starts for this year through July totaled 877,600, down 10.6% from the comparable figure for 1987. ■

QUARTERLY REPORTS

Earnings increase, with boost from pulp sector

SAN FRANCISCO, CALIF.—As measured by financial performance of major corporations, the forest products economy remained strong in the second quarter. Among integrated companies, pulp and paper products continued to contribute most to this prosperity.

Earnings of International Paper Co., $188 million, were more than double the figure for the same quarter in 1987. Chairman and CEO John A. Georges attributed this to "continued strong demand for nearly all our products and the price increases we have realized on all our major product lines."

Boise Cascade Corp. quarterly earnings also more than doubled to a quarterly record of $72.2 million. Paper and paper products earnings were at record levels within that amount, while income from the company's building products segment fell below the comparable figure a year ago.

Georgia-Pacific Corp. chairman and CEO T. Marshall Hahn Jr. credited "generally favorable business conditions throughout the economy" with raising second-quarter sales to $2.42 billion. Earnings were down because a $37-million after-tax gain from the sale of interest in Georgia Gulf Corp. was credited to the earnings column in the second quarter a year ago. Operating profits for the pulp and paper segment were at record levels; for building products they fell to $120 million from $144 million.

Louisiana-Pacific Corp.'s pulp segment continued record performance in the second quarter. "We also benefited from lumber and panel price increases during the last two weeks of the quarter

U.S., Canadian forest industry results, second quarter 1988 ($ millions)

Company	Sales	% change 1988/87	Earnings[1]	% change 1988/87
Abitibi-Price	C835.5	10.5	C54.4	50.3
Boise Cascade Corp.	1,007.2	7.6	72.2	105.0
B.C. Forest Products	C393.3	14.3	C48.9	50.9
Canadian Pacific For. Prods.	C753.5	8.5	C74.3[2]	48.3
Champion International	1,262.4	8.7	112.2[3]	67.1
Chesapeake Corp.	184.7	5.5	11.9	67.1
Consolidated-Bathurst	C609.0	6.2	C59.9	38.3
Domtar Inc.	C646.0	(1.7)	C24.0	(45.5)
Federal Paper Board	248.2	3.0	28.8[4]	71.8
Georgia-Pacific Corp.	2,418.0	15.4	118.0[5]	(20.3)
Great Northern Nekoosa	856.9	49.0	85.3	90.0
International Paper Co.	2,400.0	26.3	188.0	108.9
Louisiana-Pacific Corp.	474.2	13.5	39.0[6]	18.2
MacMillan Bloedel Ltd.	C851.5	5.5	C94.5	26.7
Noranda Forest Inc.	C1,181.0	7.2	C71.0	31.5
Normick Perron Inc.	C50.5	21.1	C0.8	(73.3)
Pope & Talbot Inc.	122.0	14.7	6.9	(4.9)
Potlatch Corp.	266.8	9.4	24.5	10.0
Stone Container Corp.	858.7	3.3	78.1	140.3
Temple-Inland Inc.	448.5	13.5	53.1	48.3
Union Camp Corp.	660.1	11.8	74.1	54.9
Weldwood of Canada Ltd.	C237.5	25.0	C20.3	77.5
West Fraser Mills Ltd.	C123.4	10.8	C13.7	15.1
Westvaco Corp. (4/30)	533.3	15.6	45.2	55.1
Weyerhaeuser Co.	2,094.7	18.4	150.6	68.8
Willamette Industries	424.6	20.5	42.3	52.4
WTD Industries (4/30)[7]	79.8	39.5	2.3	28.3

1. Income after taxes from continuing operations, excluding most significant non-recurring items in both years. 2. Results include those of Great Lakes Forest Products Ltd. and CIP Inc., which merged to form Canadian Pacific Forest Products in second quarter 1988. 3. 1987 quarter excludes pretax gains related to sale of the company's investments in Stone Container Corp. and U.S. Plywood Corp. and adjustment of a reserve. 4. 1987 quarter earnings exclude $8.2-million charge from premium on retirement of debt. 5. 1987 quarter earnings include pretax gain of $60 million from liquidation of investments. 6. Results restated to show Fibreboard Corp. as a discontinued operation. 7. Fourth quarter results of fiscal year.

that resulted from labor disruptions at many western mills," reported chairman and president Harry A. Merlo.

Willamette Industries found higher prices attainable at southern and eastern operations helped offset "the minor impact of the strike on quarterly earnings," said president and CEO William Swindells.

Temple-Inland Inc.'s building products group earnings were down from a year ago, $9.1 million versus $10.7 million, but showed improvement over the first quarter.

WTD Industries Inc., whose products are wholly within the solid-wood sector, reported its second-best quarter ever in the three-month period ending April 30. This was the fourth quarter of WTD's fiscal year, which ended with sales up 66% to $293.7 million and earnings up 78% to a record $8.4 million. This was the sixth consecutive year of record sales and earnings for the fast-growing company, which now has 25 mills in four states. ■

CHARTING NEW OWNERS

Timberland purchased, small mills change hands

SAN FRANCISCO, CALIF.—Hard news about corporate transactions this month concentrates on timberland purchases and small mills.

Potlatch expands timber base

Potlatch Corp. has purchased 65,000 acres of timberland in northern Minnesota which formerly belonged to Diamond International Corp.

The purchase, stocked largely with aspen, brings Potlatch's Minnesota forest holdings to 331,000 acres. Wood will supply two oriented strand board plants, one of which is being doubled in size through a current $36-million undertaking, and a premium printing papers mill.

Noranda buys Maine resources

August closing was expected for purchase of former Diamond International timber holdings in Maine by Noranda Forest Inc. The 235,000 acres of timberland will assure timber supply for Fraser Inc. paper mills in New Brunswick and Maine, it was said.

WTD adds Washington stud mill

WTD Industries Inc. has formed a subsidiary, Orient Lumber Co., to purchase a stud mill in Orient, Wash., from Capital Development Co. Annual capacity is 50 million bd ft.

G-P purchases planing mill

Georgia-Pacific Corp. has bought a 25 million bd ft/year planing mill in Suffolk, Va., from Ramsey Lumber Co. Rough, dry southern pine lumber from G-P sawmills in Wakefield and McKenney, Va., and Ahoskie, Creedmore and Dudley, N.C., will be shipped to the Virginia facility.

Fibreboard buying mystery mills

Fibreboard Corp. has announced it is in the process of acquiring a privately held company with sawmill and reman-

LETTERS

Acknowledging log scalers, radio choker inventor

Scaling inferences termed 'unfair'

I recently read a back issue of FOREST INDUSTRIES and was dismayed to find an article (February 1988, pp. 18-21) that does a disservice to log scalers.

In an otherwise interesting article about cost analysis, there are two references that are unfair to scalers:

"It is often said, only half in jest, that the logging price is not as important as how the logs are measured and who the scaler works for."

"Cruisers know even less about trees than log scalers know about logs."

I think these statements are really low blows.

Speaking for myself as a second-generation scaler (not only is my father a scaler, but my uncle and his two sons are scalers, as are two other cousins), I've been taught by people that have been in the field for 30 years or longer, and those people have taught me well.

I believe that most scalers do an accurate job. They try to do their best under a wide range of conditions—weather, flow of logs coming in, not enough help, etc.

I just want to set the record straight.

Ralph Mendenhall Jr.
Log scaler
Pacific Log Scaling and Grading Bureau
Portland, Ore.

(The authors of the article on logging cost appraisals, both forestry professionals, may have overstated their case. It looked like their point was made to illustrate the difficulties scalers and cruisers face in quantifying variables, rather than to take a swipe at any occupational group. In any event, we're sorry you were offended, but glad you responded—Ed.)

Giving credit where it's due

I was flattered by the credit given me in your August issue (p. 38) for the invention of the radio-controlled choker.

However, Dennis Vaders is the original inventor and patent holder. My patent only covers an improvement to the geometry of the body.

As project engineer after Dennis, I know that more than a dozen people in R&D, harvesting operations, and licensee Johnson Industries Ltd. have made significant contributions to the development of the radio-controlled choker, but without Dennis, there may never have been one to develop.

John S. Selby, P.E.
Design Engineer/Project Leader
Lumber and Raw Materials R&E
Weyerhaeuser Co.
Tacoma, Wash.

(The attribution, and the invention scenario, came from a Weyerhaeuser Co. news release—Ed.)

Care and feeding of authors

Thanks again for the excellent presentation of our article in the July issue (*How to maintain linear positioners*, pp. 30-31.) Please express our thanks to the individual who did the typesetting and layout work.

We have received some very positive feedback from a variety of sources around the country.

It is always a pleasure working with you. Our business has doubled in 1988. The exposure our company has received through FOREST INDUSTRIES has certainly been a major contributor to the increase in business.

Carl A. Smiley Sr.
Carl A. Smiley Jr.
Southern Maintenance Consulting Services
Covington, Ga.

(Staff editors, like log scalers, are often underappreciated. Thanks.—Ed.)